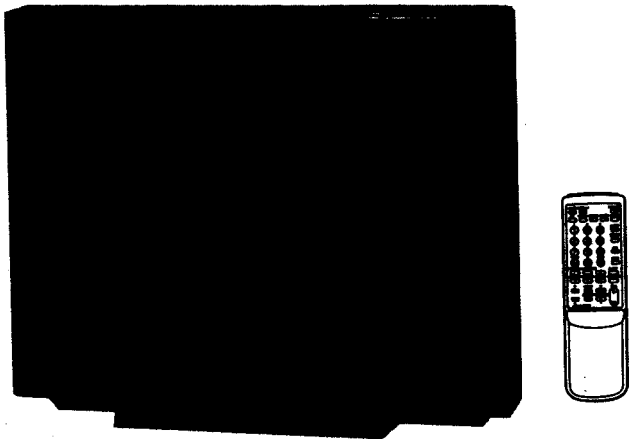
KV-S29JN1/S29MN1/S29SN1
KV-S34JN1/S34MN1/S34SN1
RM-821



Chassis No. SCC-F54B-A
KV-S34JN1
Chassis No. SCC-F54A-A

GE Model
KV-S29MN1
Chassis No. SCC-F51B-A
KV-S34MN1
Chassis No. SCC-F51A-A

Australian Model
KV-S29SN1
Chassis No. SCC-F53B-A
KV-S34SN1
Chassis No. SCC-F53A-A

G I CHASSIS

MODELS OF THE SAME SERIES	
KV-S29JN1/S29MN1/S29SN1	
KV-S34JN1/S34MN1/S34SN1	

TRINITRON® COLOR TV

SONY®

MICROFILM

Specifications

Television standards	B/G, H, I, D/K, M
Color system	PAL, SECAM, NTSC 4.43, NTSC 3.58
NICAM stereo system	B/G -system: KV-S34MN1/S34SN1/S34JN1/ S29MN1/S29SN1/ S29JN1
Antenna	75-ohm external antenna terminal
Speakers	Woofer 12 cm Middle-High 5 cm

Inputs

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	Phono jack 1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 47 kiloohms)
VIDEO 2			
VIDEO 3	—		
VIDEO 4	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms		

Output

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 5 kiloohms or less)
VIDEO 2			
VIDEO 4			
MONITOR			
AUDIO OUT	—	—	

Power requirements
KV-S34JN1/S29JN1: 110 – 240 V AC, 50/60 Hz
KV-S34MN1/S34SN1/S29MN1/S29SN1: 220 – 240 V AC, 50/60 Hz

Model	KV-S34MN1/ S34SN1/S34JN1	KV-S29MN1/ S29SN1/S29JN1
Picture tube	34-inch (about 86 cm) Trinitron tube (about 80 cm picture measured diagonally) 110-degree deflection	29-inch (about 72 cm) Trinitron tube (about 68 cm picture measured diagonally) 110-degree deflection
Power consumption	225 W	223 W
Dimensions (w/h/d)	809 x 649 x 574 mm	694 x 558 x 527 mm
Weight	81 kg	56 kg

Accessories supplied	RM-821 Remote Commander (1) R6 batteries (2) Power cord plug adaptor (2, only for KV-S34JN1/S29JN1) Band (1), Clamp (2), Screw (4)
Optional accessory	RM-829 Remote Commander SU-S34 A/V rack SU-S29 A/V rack

Design and specifications are subject to change without notice.

Channel Coverage

MIDDLE EAST/ASIA (B/G, H)

Receivable Channel	Channel Display
E-2 to E-12	C02 to C12
E-21 to E-69	C21 to C69
Indonesia	
2 to 11	C03 to C12
Morocco	
M-4 to M-7	C70 to C73
M-8 to M-10	C8 to C10
New Zealand	
2	C03
3	C04
4 to 9	C05 to C10

E.EUROPE/CHINA (D/K)

Receivable Channel	Channel Display
East European countries	
R-1 to R-12	C01 to C12
R-21 to R-60	C21 to C60
China	
C-1	C01
C-2	C02
C-3	C13
C-4	C03
C-5	C04
C-6	C14
C-7 to C-12	C06 to C11
C-13 to C-24	C21 to C32
C-25 to C-47	C38 to C60
C-48 to C-57	C61 to C70

CATV W. EUROPE (B/G, H)

Receivable Channel	Channel Display
S-01 to S-03	C42 to C44
S-1 to S-41	C01 to C41

AMERICA (M)

Receivable Channel	Channel Display
2 to 83	C02 to C83

AUSTRALIA (B/G, H)

Receivable Channel	Channel Display
Australia	
AS-0 to AS-11	C00 to C11
AS-5A	C12
AS-28 to AS-69	C28 to C69
New Zealand	
2 to 3	C01 to C02
4 to 7	C06 to C09
8	C13
9	C10

CATV AMERICA (M)

Receivable Channel	Channel Display
2 to 13	C02 to C13
A-1	C99
A-2	C98
A-3	C97
A-4	C96
A-5	C95
A-6	C06
A-7	C05
A-8	C01
A, B,..., W	C14, C15,..., C36
AA,..., CCC	C37,..., C65

HK/UK (I)

Receivable Channel	Channel Display
Hong Kong, United Kingdom	
B-21 to B-68	C21 to C68
Ireland	
B,C,..., J	C02, C03,..., C09
South Africa	
4 to 13	C04 to C13
21 to 68	C21 to C68

JAPAN

Receivable Channel	Channel Display
J-1 to J-62	C01 to C62
C-13 to C-32	C80 to C99

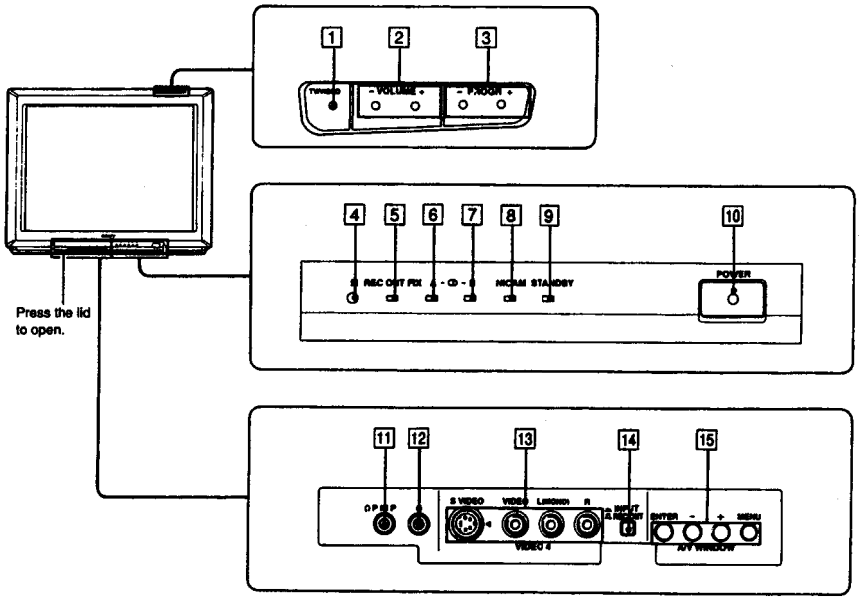
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1
GENERAL

1-1. OVERVIEW

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set



1 TV/VIDEO button ●

2 VOLUME +/– buttons ●
Press to adjust the volume.

3 PROGR (program) +/– buttons ●
Press to select a program.

4 ■ Remote control detector
Operate the Remote Commander pointed at here.

5 REC OUT(recording output) FIX lamp ●

6 A mode lamp ●

7 B mode lamp ●

8 NICAM lamp ●

9 STANDBY lamp

10 POWER switch

11 Ω P IN P (Picture In Picture) headphones jack
Connect a headphone to listen to the sound of P IN P picture.

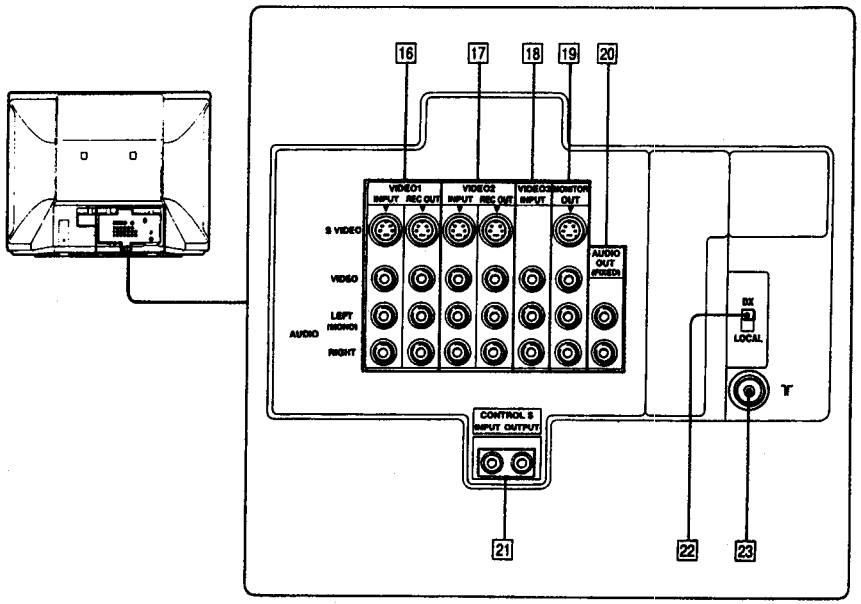
12 Ω Headphones jack
Connect a headphones to listen personally.

13 VIDEO 4 connectors ●

14 VIDEO 4 INPUT/REC OUT(recording output) button ●
Press to switch the video 4 connectors to input or output.

15 Menu and A/V(audio/video) WINDOW function buttons ●●●●●●●●

Rear



16 VIDEO 1 INPUT/REC OUT(recording output) jacks ●

17 VIDEO 2 INPUT/REC OUT(recording output) jacks ●

18 VIDEO 3 INPUT jacks ●

19 MONITOR OUT(output) jacks
Connect another TV or monitor.

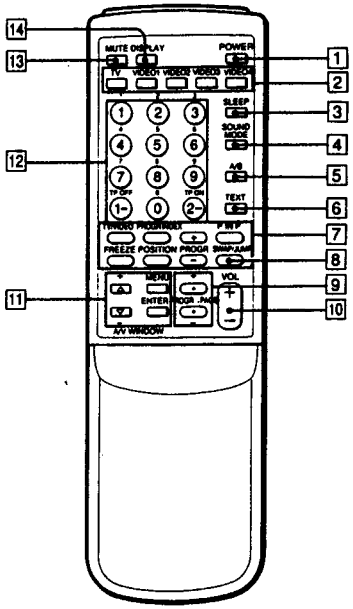
20 AUDIO OUT(output) (FIXED) jacks ●

21 CONTROL S INPUT/OUTPUT jacks
To control the TV with the Remote Commander to be pointed at another Sony equipment, connect the Sony equipment to INPUT.
To control another Sony equipment with the Remote Commander to be pointed at the TV, connect the Sony equipment to OUTPUT.

22 DX/LOCAL switch
Normally set this switch to DX. If the sound is noisy, or lines or stripes appear on the screen because of too strong TV signal, set the switch to LOCAL.

23 Y (antenna) terminal ●

Remote Commander



1 POWER button ●

2 TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4 (FRONT) input select buttons ●

3 SLEEP button ●
Press to set the sleep timer so that the TV automatically switches into standby mode.

4 SOUND MODE button ●
Press to select the sound mode according to the program.

5 A/B button ●
Press to select the sound mode of stereo or bilingual program.

6 TEXT button ●
Press to switch to teletext mode.

7 P IN P (Picture In Picture) screen control buttons ● ●

8 JUMP button ●

9 PROGR(program)/PAGE +/– buttons ● ● ●

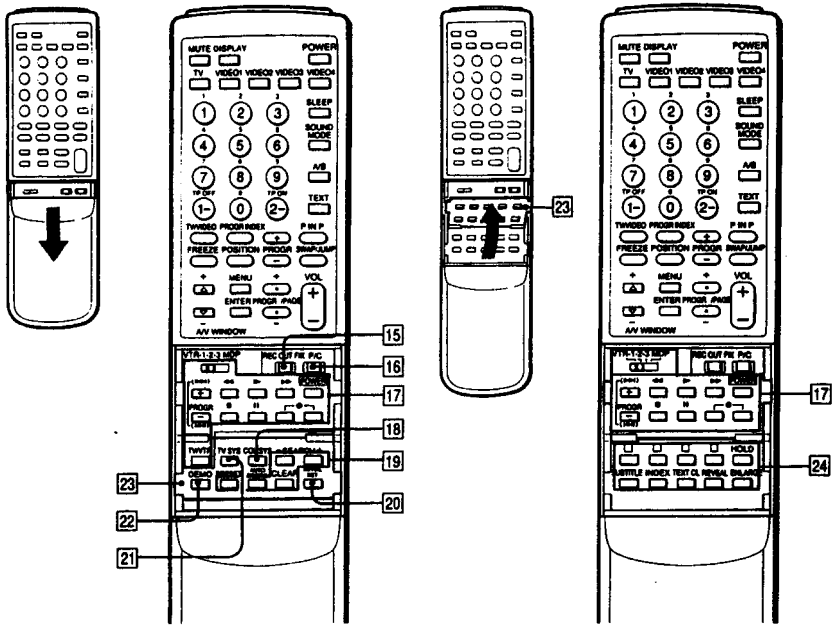
10 VOL(volume) +/– buttons ●

11 Menu and A/V(audio/video) window function buttons ● ● ● ● ● ● ● ● ●

12 Program number buttons ●

13 MUTE button ●

14 DISPLAY button ●
Press to display current mode and program position.



15 REC OUT(recording output) FIX button ●
Press to fix the source to be recorded.

16 P/C (program position/channel) button ●

17 VTR/Multi disc player controls

When the panel 23 is in the lower position

18 COL SYS(color system) button ●
Press to select a color system.

19 Channel presetting buttons ● ●

20 INITIAL SET button
Press to reset the adjustment and setting to factory-set mode.

21 TV SYS(system) button ● ●
Press to select a TV system.

22 DEMO(demonstration) button ●
Press to see all the menu pages in sequence.

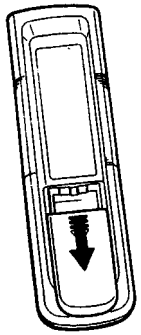
23 Panel
Make sure that the panel is fixed in the upper or lower position.

When the panel is in the upper position

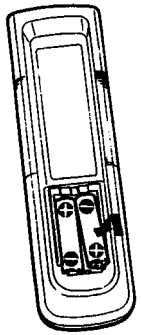
24 Teletext operation buttons ● ●

1-2. INSETING THE BATTERIES INTO THE SUPPLIED REMOTE COMMANDER

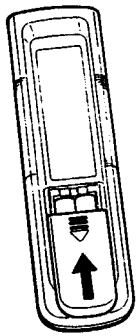
1 Detach the cover.



2 Check the correct polarities.



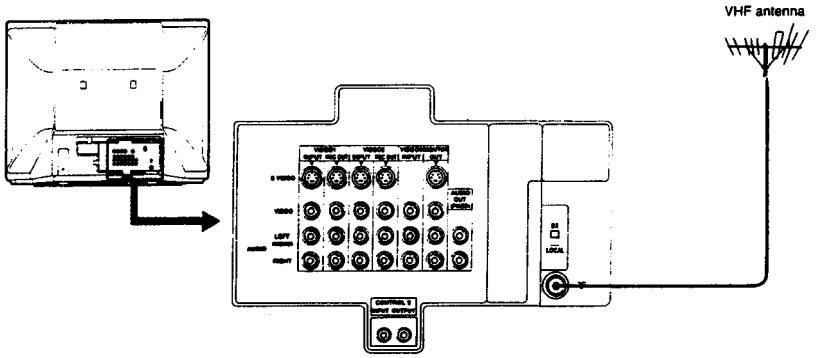
3 Replace the cover.



1-3. CONNECTING THE ANTENNA

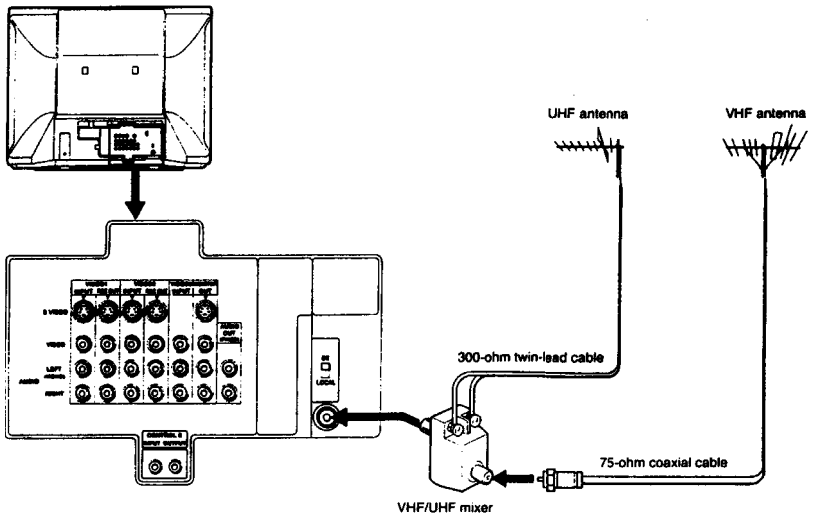
Connecting a VHF Antenna or a Combination VHF/UHF Antenna–Round 75-ohm Coaxial Cable

Attach an IEC antenna connector to 75-ohm coaxial cable.
Plug the connector into the Ψ (antenna) socket at the rear of the TV.



Connecting Both VHF and UHF Antennas

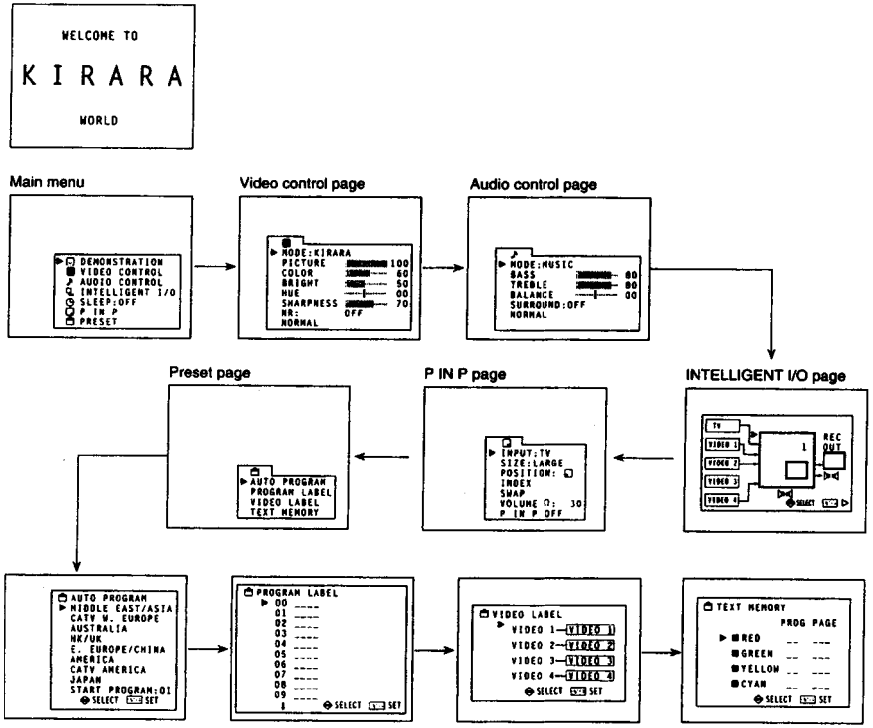
Attach the antenna ends to the VHF/UHF mixer (not supplied).
Plug the mixer into the Ψ (antenna) socket at the rear of the TV.



1-4. INTRODUCTION OF MENU

You will perform presetting, adjustment and other setting on the menu. Before beginning the presetting and operation, we suggest to have a look at the pages in the menu.

Press the DEMO button on the Remote Commander.
All the menu pages appear in sequence, and repeatedly.
To stop demonstration, press any button.



1-5. PRESETTING THE CHANNELS

Channel Allocation

Areas allocated in "MIDDLE EAST/ASIA" channel system
Afghanistan, Albania, Algeria, Austria, Bahrain, Bangladesh, Belgium, Brunei, Canary Islands, Cyprus, Denmark, Egypt, Finland, Germany, Ghana, Gibraltar, Greece, Iceland, India, Indonesia, Iran, Iraq, Italy, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Liberia, Libya, Luxemburg, Malaysia, Malta, Mauritania, Mauritius, Maldives Rep., Morocco, Mozambique, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Portugal, Qatar, Sarawak, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Spain, Srilanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Rep., Tanzania, Thailand, Tunisia, Turkey, Uganda

Areas allocated in "CATV W. EUROPE" channel system
United Arab Emirates, Western Sahara, Yemen Arab Republic, People's Dem. Rep. of Yemen, Yugoslavia, Zambia, Zimbabwe

Areas allocated in "AUSTRALIA" channel system
Australia, New Zealand

Areas allocated in "HK/UK" channel system
Hong Kong, Ireland, Lesotho, South Africa, United Kingdom

Areas allocated in "E. EUROPE/CHINA" channel system
Benin, Bulgaria, China, Congo, Czechoslovakia, Djibouti Republic, Gabon, Guadeloupe, Guiana, Guinea (P.P.R.), Hungary, Ivory Coast, Dem. People's Rep. of Korea, Madagascar, Mongolia, New Caledonia, Niger, Poland, Reunion, Rumania, Senegal, Tahiti, Togo, Former U.S.S.R., Vietnam, Zaire

Areas allocated in "AMERICA" channel system
Bahama Islands, Barbados, Belize, Bermuda, Bolivia, Burma(UHF), Canada, Chile, Colombia, Costa Rica, Cuba, Dominica Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Hawaii, Honduras, Jamaica, Laos, Mexico, Panama, Peru, Philippines, Puerto Rico, Surinam, Taiwan, Trinidad & Tobago, U.S.A., Venezuela

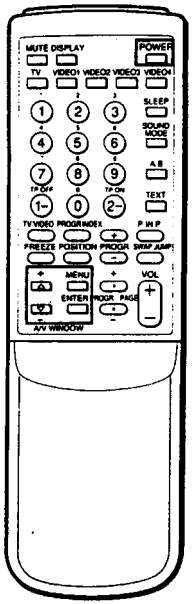
Areas allocated in "CATV AMERICA" channel system
U.S.A.(CATV)

Areas allocated in "JAPAN" channel system
Japan (UHF, VHF), Burma (Myanmar) (VHF)

TV and Color System of the Channel System

The TV system and color system are automatically set according to the channel system.

Channel system	TV system	Color system
MIDDLE EAST/ASIA	B/G, H; West European TV standard	AUTO
CATV W.EUROPE	B/G, H; West European TV standard	AUTO
AUSTRALIA	B/G, H; Australian TV standard	AUTO
HK/UK	I; British TV standard	AUTO
E.EUROPE/CHINA	D/K; East European TV standard	AUTO
AMERICA	M; American TV standard	AUTO
CATV AMERICA	M; American TV standard	AUTO
JAPAN	M; Japan TV standard	AUTO



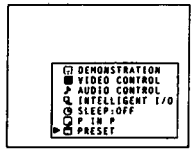
Preset Channels Automatically

Up to 30 receivable channels from the lowest channel are automatically preset in the consecutive program positions (1 to 29, 0).
With this method, you can preset all receivable channels at once.

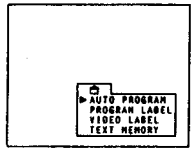
1 Press the POWER switch on the TV to turn on the TV.

2 Press MENU on the Remote Commander.

3 Move the red cursor to "PRESET" using △ or ▽, then press ENTER.



4 Move the red cursor to "AUTO PROGRAM" using △ or ▽, then press ENTER.



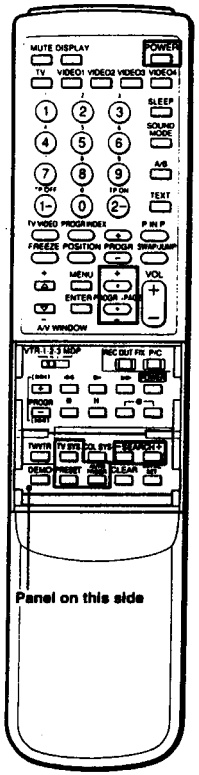
5 Move the red cursor to your channel system using △ or ▽, according to the list on page 11, then press ENTER.
Presetting starts from program position 1. When presetting is finished, 1 (program number) appears.

Program and channel numbers

P01 C01 → P01 C02 → P02 C03 ---→ 1

If you want to start a program number other than 1
Before pressing ENTER in step 5, press PROGR +/– or the number button until the number you want appears at "START PROGRAM : __".

If you cannot use the Remote Commander
Use the MENU, ENTER, + and – buttons on the TV, and perform as above.



To preset the channels automatically without using the menu

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander. P01 C01

3 Select your channel system by pressing TV SYS, referring to "Channel Allocation" on page 11.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
↑
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA ←

4 Press AUTO PROGR.

P01 C01 → P01 C02 → P02 C03 ---→ 1

Preset Channels Manually

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one.

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander. P01 C01

3 Using the PROGR/PAGE + and – buttons, select the program position to which you want to preset a channel. P03 C01

4 Select your channel system by pressing TV SYS.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
↑
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA ←

5 Tune in the channel, using the SEARCH +/– buttons. P03 C01
The channel number starts counting up or downwards.
When a channel is found, it stops.

6 Repeat steps 3 to 5 to preset other channels.

7 Press PRESET. 3

1-6. ADDITIONAL PRESETTING FUNCTIONS

Skipping Program Positions

You can skip unused program positions when selecting programs with the PROGR/PAGE + and – buttons. However, the skipped programs may still be called up when you use the number buttons.

1 Press PRESET.

P01 C01

2 Select the program position using PROGR/PAGE + and – buttons.

P03 C01

3 Press CLEAR.

P03 C--

4 Press PRESET.

1

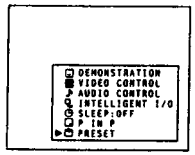
Repeat steps 1 to 4 to skip other program positions.

Captioning a Station Name

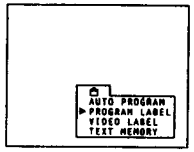
You can "name" a channel using up to four characters so that the name is displayed under the program number. Using this function, you can easily identify which channel you are watching.

1 Press MENU.

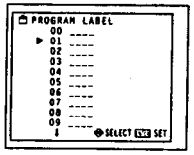
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.



3 Move the red cursor to "PROGRAM LABEL" using Δ or ∇, then press ENTER.



4 Move the red cursor to the program number you want using Δ or ∇, then press ENTER. The first underline of the selected program number turns red.



5 Select a character using Δ or ∇, then press ENTER. The next underline turns red. Write character for each underline in the same way.
If you do not want to write a character, press ENTER.

01 C___ → 01 C8__ → 01 C8S_

Usable characters: A to Z, 0 to 9, –, :, /, .(period), + and space

6 Repeat steps 4 and 5 to caption other program numbers.

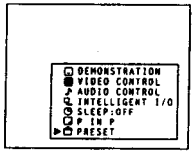
7 When you finished, press MENU.

Captioning a Video Input

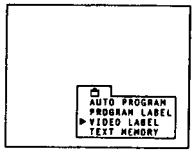
Using this function, you can identify the source (VHS, Beta, 8mm, Multi disc player, Tuner) of the video inputs, as the source is displayed under the video input.

1 Press MENU.

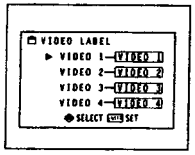
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.



3 Move the red cursor to "VIDEO LABEL" using Δ or ∇, then press ENTER.



4 Move the red cursor to the video input (1, 2, 3, 4) you want using Δ or ∇.



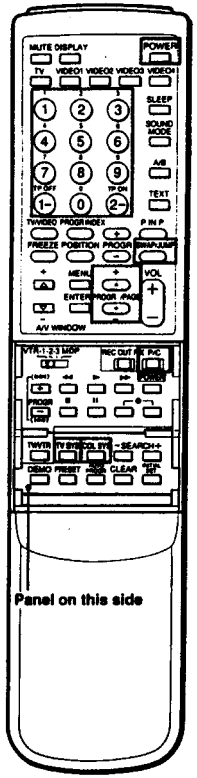
5 Press ENTER until the source name appears.

VIDEO 1 → VHS → BETA → 8mm → LD → TUNER

6 Repeat steps 4 and 5 for other video input.

7 When you finished, press MENU.

1-7. WATCHING THE TV



This section explains the basic functions you use while watching the TV.

Switching the TV on and off

Switching on
Press the POWER switch on the TV.

Switching off temporarily
Press POWER on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

Switching on again
Press POWER, TV, PROGR/PAGE +/–, or one of the number buttons on the Remote Commander.
If you cannot use the Remote Commander, press PROGR +/– on the TV.

Switching off completely
Press the POWER switch on the TV.

Selecting TV Programs

Press PROGR/PAGE +/– or press number buttons.
To select program 5, press "5".
To select program 10, press "1–" "0".
To select program 25, press "2–" "5".

To return to the previous program number
Press JUMP. (This button functions as SWAP when the P IN P (see page 21) is displayed.)

If the sound is noisy or not heard
Press TV SYS until the sound becomes clear.

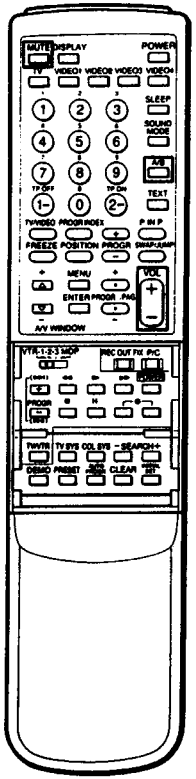
If the color program does not appear in color
Press COL SYS until the color becomes normal.

Selecting TV Program by Channel Number (not by program number)

See page 29 for the channel numbers.
1 Press P/C so that C-- appears.
2 While C-- is on, select the channel system by pressing TV SYS.
The TV becomes channel tuning mode.
3 While C-- is on, press the channel number.
To select channel 5, press "0", "5".
To select channel 25, press "2", "5".

To skip channels
1 Press P/C so that C-- appears.
2 Select the channel number to be skipped using the number buttons or PROGR/PAGE +/– buttons.
3 Press CLEAR.
Repeat steps 1 to 3 to skip other channels.
To restore the skipped channel, tune in the channel and press PRESET.

To select TV programs by program number
1 Press P/C so that P-- appears.
2 While P-- is on, press the program number.

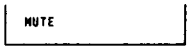


Adjusting the Volume

Press VOL +/–.

Muting the Sound

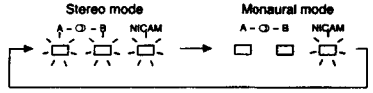
Press MUTE.



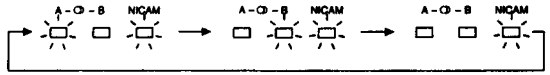
To resume normal sound, press MUTE again.

Receiving a Stereo or Bilingual Program

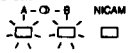
When the TV receives a NICAM stereo system program
The NICAM lamp, A and B mode lamps light. Press A/B to select stereo or monaural mode. If the signal is very weak, the sound becomes monaural. The NICAM, A and B mode lamps go off.



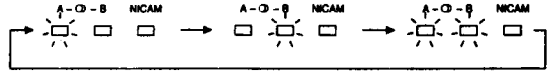
When the TV receives a NICAM bilingual system program
The NICAM lamp, A and/or B mode lamp(s) light. Press A/B so that the lamp (A or B) of the mode you want lights up.



When the TV receives a German stereo system program
The A and B mode lamps light. If the signal is very weak, the sound becomes monaural. The lamps go off.

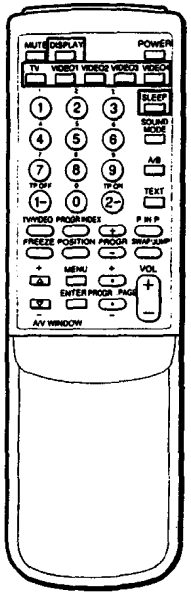


When the TV receives a German bilingual system program
A and/or B mode lamp(s) light(s). Press A/B so that the lamp (A, B, or A and B) of the mode you want lights up.



Who can receive the NICAM stereo/bilingual system
The NICAM stereo/bilingual system is receivable in Hong Kong, Singapore, New Zealand, etc.

Who can receive the German stereo/bilingual system
The German stereo/bilingual system is receivable in Australia, Malaysia, Thailand, etc.



Watching Video Input

Using the VIDEO 1, VIDEO 2, VIDEO 3, and VIDEO 4 buttons, select the video input.
To go back to the normal TV picture, press TV.

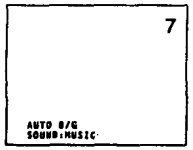
When you select VIDEO 4
If "SELECT INPUT MODE" appears on the screen, press the VIDEO 4 INPUT/REC OUT button on the front panel of the TV to select INPUT (⏏).

On the TV
Press TV/VIDEO.

Displaying the On-screen Indications

Press DISPLAY.
The program number, color and TV system setting and sound mode appear. They, except the program number, will disappear after some seconds.
Press again to make indications disappear.

In channel tuning mode (C--), channel number, channel system and sound mode appear.



Using the Sleep Timer

You can select the time period after which the TV automatically switches into standby mode.
Select the time period by pressing SLEEP.
The time period (in approximate minutes) changes as follows:

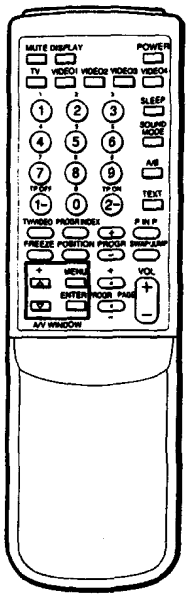
SLEEP OFF → SLEEP 30 → SLEEP 60 → SLEEP 90 → (SLEEP OFF)

About one minute before the TV switches into standby mode, "SLEEP" is displayed on the screen.

To switch off the sleep timer
Press SLEEP until "SLEEP OFF" appears.

To check the remaining time
Press SLEEP.
If you do not want to change the remaining time, leave it until it disappears automatically.

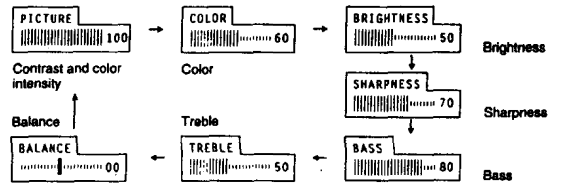
Setting the sleep timer using the menu or on the TV set
Use the MENU, ENTER, △ and ▽ buttons on the Remote Commander or on the TV.
1 Press MENU.
2 Move the cursor to "SLEEP" using △ or ▽.
3 Press ENTER until the time period you want appears at "SLEEP: __".



Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Select the item by pressing ENTER.



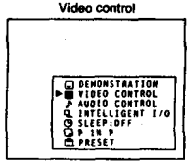
2 Using △ or ▽ button, adjust the item to your taste.

Adjusting the picture and sound using the menu or on the TV set
Use the MENU, ENTER, △ and ▽ buttons on the Remote Commander or on the TV.

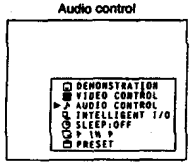
1 Press MENU.

2 To adjust the picture, move the red cursor to "VIDEO CONTROL" using △ or ▽, then press ENTER.
To adjust the sound, move the red cursor to "AUDIO CONTROL" using △ or ▽, then press ENTER.

Video control

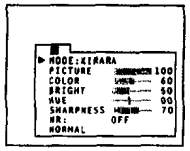


Audio control

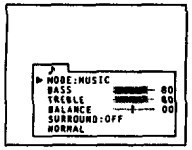


3 Move the red cursor to the item you want to adjust using △ or ▽, then press ENTER.

Video control

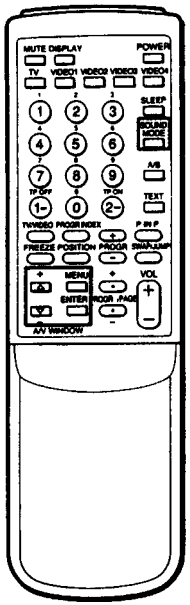


Audio control



4 Adjust the item. (See the table on page 20.)

5 Press MENU to turn off the menu.



Effect of each control

Picture

Item	Press	Effect
MODE	ENTER	↱ KIRARA → MIDDLE → SOFT ↰
PICTURE	△/▽ → ENTER	Less ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ More
COLOR	△/▽ → ENTER	Less ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ More
BRIGHT	△/▽ → ENTER	Darker ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ Brighter
HUE	△/▽ → ENTER	Greenish ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ Reddish (for NTSC signal only)
NR[1]:	ENTER	↱ OFF → ON ↰
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

1) Noise reduction. Set to ON when the picture is noisy because of a weak signal or tape deterioration.

Sound

Item	Press	Effect
MODE	ENTER	↱ MUSIC → STANDARD → NEWS ↰
BASS	△/▽ → ENTER	Less ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ More
TREBLE	△/▽ → ENTER	Less ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ More
BALANCE	△/▽ → ENTER	Left speaker ▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮ Right speaker
SURROUND	ENTER	↱ OFF → MUSIC[2] → MOVIE[3] → SPACE[4] ↰
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

2) MUSIC mode is effective for music programs.
3) MOVIE mode is effective for movie programs.
4) SPACE mode gives spacious monaural sound.

Notes

- When the menu is displayed, you cannot change the program using the number buttons. Use PROGR/PAGE +/–.
- When there is no signal, the screen is blue. However, the screen is noisy when the menu or the P IN P (see page 21) are displayed.

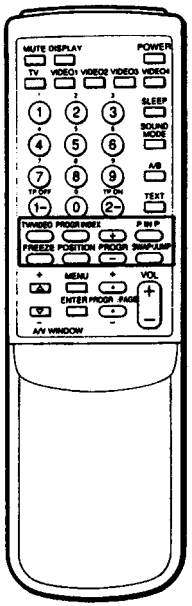
Selecting the Sound Mode

You can select a proper sound mode in accordance with the program.
Select the sound mode by pressing SOUND MODE.

↱ MUSIC — Music program: The high and low tones are emphasized.
↓
STANDARD — Standard sound
↓
NEWS — News program: The person's voice becomes easy to hear.

1-8. PICTURE IN PICTURE (P IN P)

Buttons for P IN P operation



With this function you can display a "P IN P screen" (small picture) within the main picture of TV program or video input. In this way you can watch or monitor TV program or the video input from any connected equipment while watching TV or other video input. For information about connection of other equipment, see page 25.

Switching P IN P on and off

Press P IN P.
The P IN P screen is displayed. The P IN P picture comes from the source chosen when the TV was last used.

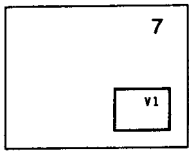
To switch P IN P off
Press P IN P again.

Selecting a P IN P source

To select a TV program, use PROGR + and – buttons of the P IN P section.
To select a video input, press TV/VIDEO.

Each time you press TV/VIDEO, the indication at the top right corner of the P IN P screen changes:

↱ TV program number → V1 → V2 → V3 → V4 ↰

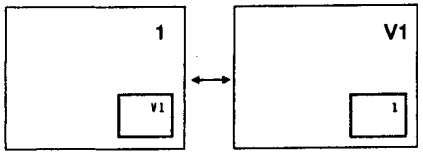


Notes

- If no video source has been connected, the P IN P screen is black.
- You may not be able to receive some channels in P IN P, even though they are being received for the main picture.
- If you display the signals for different color systems (PAL, SECAM, NTSC) for the main picture and in the P IN P, size of the P IN P may be different.
- If a TV channel in which no program is broadcast is received for the P IN P screen, the program number of P IN P may become black.

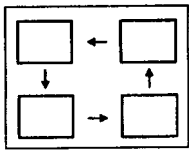
Swapping screens

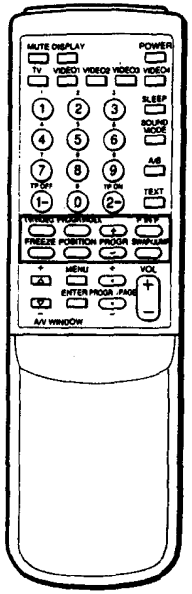
Press SWAP.
The main screen switches the picture with the P IN P screen.



Changing the position of the P IN P

Press POSITION repeatedly to change the position of the P IN P screen. There are four different positions available.





Freezing the P IN P picture

Press FREEZE.
To restore the normal picture, press FREEZE again.

Note

If you press FREEZE when there is no P IN P screen, the main picture is frozen and appears in the P IN P screen.

Checking the programs available

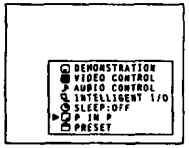
Press PROGR INDEX. The preset programs appear in the P IN P screen one by one in sequence.
To stop checking programs, press PROGR INDEX.

Operating P IN P using the menu or on the TV set

Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.

Using the menu, you can change the P IN P size and adjust the P IN P headphone volume to hear through the headphone besides the above operations.

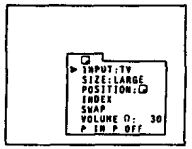
1 Press MENU.
2 Move the red cursor to "P IN P" using Δ or ∇, then press ENTER.



3 Move the red cursor to the item you want to set using Δ or ∇, then press ENTER.

INPUT: → TV → VIDEO 1 → VIDEO 2 → VIDEO 3 → VIDEO 4 →
SIZE: → SMALL → LARGE →
POSITION: → ◱ → ◰ → ◳ → ◲ →

INDEX: Performed on the P IN P screen.
SWAP: Performed on the TV.
VOLUME: Adjust using Δ or ∇, then press ENTER.
P IN P OFF: The P IN P screen disappears.

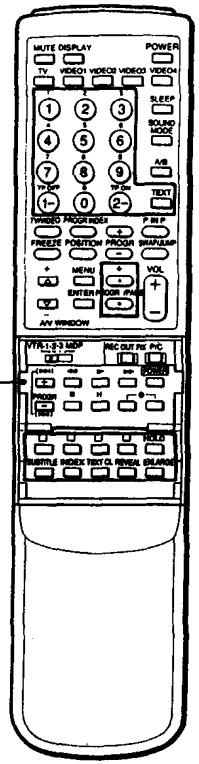


Note

When you display a VTR picture at speeds other than normal speed, such as fast-forward playback, on the P IN P screen, the picture may be noisy depending on the VTR. The picture may be improved by selecting the "SMALL" size of the P IN P screen.

1-9. TELETEXT

Buttons for teletext operation



TV stations broadcast an information service called Teletext via a TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want.

Switching Teletext on and off

1 Select the TV channels which carries the teletext broadcast you want to watch.
2 Press TEXT to switch on the teletext.
A teletext page will be displayed (usually the index page). If there is no teletext broadcast, P100 is displayed at the top left corner of the screen.

To switch Teletext off
Press TV.

Superimposing a Teletext page on the TV picture (MIX mode)

Press TEXT.
Each time you press TEXT, the screen changes:

→ Teletext → Teletext and TV → TV →

Checking the contents of the Teletext

Press INDEX to have the overview of the contents of the teletext and page numbers.

Selecting a Teletext page

Use the number buttons to input the three digits of the page number you want to turn on.

If you have made a mistake, type in any three digits. Then re-enter the correct page number.

To access the next or preceding page, press PAGE + or PAGE –.

Holding a Teletext page

A teletext page may consists of several subpages. You can stop the page scrolling in order to read the text at your own pace.

Press HOLD.
The HOLD symbol " ⏸ " is displayed at the top left of the screen.
To resume normal teletext operation, press TEXT.

Enlarging the Teletext display

Press ENLARGE once to enlarge the upper half, twice to enlarge the lower half, and again to resume normal size.

Revealing concealed information

Sometimes pages contain concealed information, such as an answer to a quiz. The reveal option lets you disclose the information.

Press REVEAL.
To conceal the information, press REVEAL again.

Displaying subtitles

Press SUBTITLE.
To make the subtitle disappear, press SUBTITLE again.

Waiting for Teletext page while watching the TV program

After requesting a page, press TEXT CLEAR.
When the page is available, the page number is displayed at the top left corner of the screen.
Press TEXT to switch the teletext on.

Displaying Teletext page at predetermined time

1 Request a time coded page (e.g. alarm page).
2 Press TP ON.
"T****" appears at the bottom of the screen.
3 Enter your request time of four digits using the number buttons. For example, if you enter 0730, the indication will become "T0730".
4 To watch the TV program, press TEXT CLEAR.
5 At the requested time, the page number is displayed at the top left corner of the screen.
To view the page, press TEXT.
To cancel the page, press TP OFF.

Using Fastext

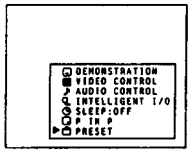
With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a color-coded menu will appear at the bottom of the screen. The colors of this menu correspond to the RED, GREEN, YELLOW and CYAN buttons on the Remote Commander.
Press the color button which corresponds to the color-coded menu. The page will be displayed after some seconds.

Switching to a Teletext page you want directly while watching a TV

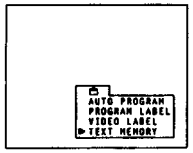
Using the menu, you can set teletext pages you want so that you can switch to the pages directly while watching a TV by pressing a color button.

To set the page

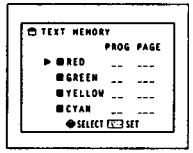
1 Press MENU.
2 Move the red cursor to "PRESET" using △ or ▽, then press ENTER.



3 Move the red cursor to "TEXT MEMORY" using △ or ▽, then press ENTER.



4 Move the red cursor to a color you want using △ or ▽, then press ENTER.
The colors correspond to the color of the buttons.



5 Press the program number button and press ENTER.
For the program number 5, press "5".
For the program number 25, press "2—" and "5".
6 Press the page number button of three digits and press ENTER.
If you made a mistake, enter any three digits and then enter the correct three digits.
If you want to cancel the operation, press "9" for the first digit.
7 Repeat steps 4 to 6 for other pages.
8 Press MENU to return to the TV display.

To view the page, press the color button of the page while watching the TV.

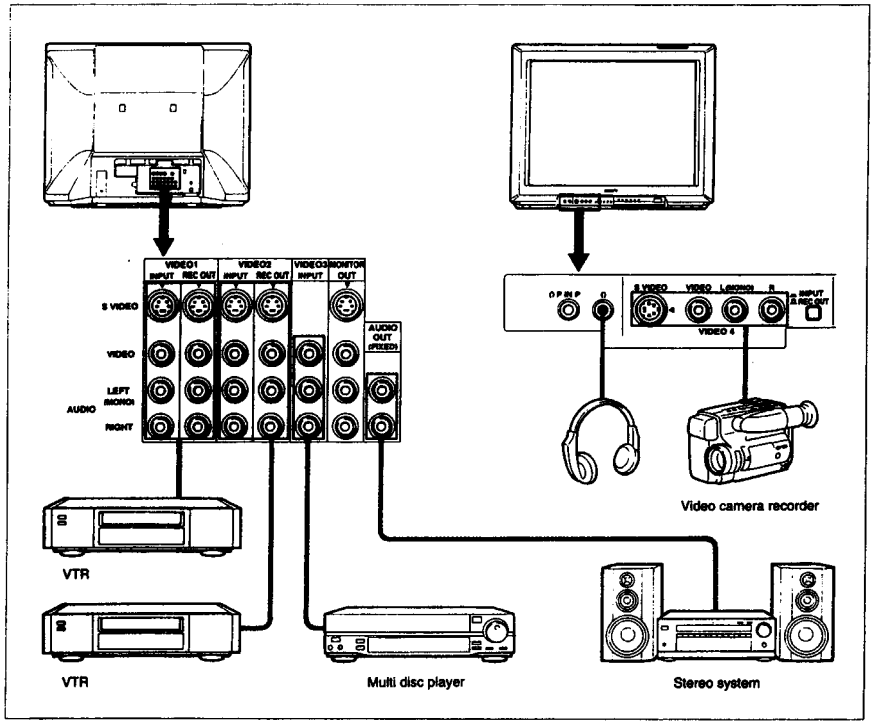
Note

The color buttons function as the FAST TEXT buttons in Teletext mode.

1-10. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

You can connect optional audio/video equipment to this TV such as VTRs, multi disc players, and stereo systems.

After connection, select the video input and output (page 18).



If the picture or the sound is distorted

Move the VTR away from the TV.

S-video input (Y/C input)

Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality. This TV is equipped with two S-video input jacks through which these separated signals can be input directly.

Notes

- Only the PAL and NTSC signals can be input to the S-video jacks.
- The signals output from the S VIDEO REC OUT jacks are those input to the S VIDEO INPUT jacks. The signals input to the VIDEO jacks are not output from the S VIDEO REC OUT jacks.

If both S-video and video signals are input

The S-video input signal is selected. To view a video signal, disconnect the S-video connection.

When connecting a monaural VTR

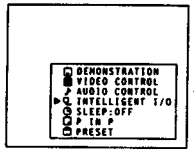
Connect only the white L (mono) jack on the TV.

1-11. SELECTING INPUT AND OUTPUT

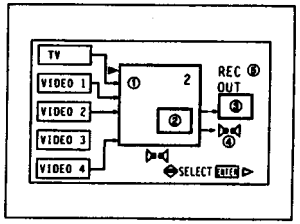
Using the INTELLIGENT I/O function, you can:
—record a source while watching the source.
—record a source while watching another source.
—record picture and sound from different sources.
—record a source while the TV is in standby mode.

Setting the INTELLIGENT I/O

1 Press MENU.
2 Move the red cursor to "INTELLIGENT I/O" using △ or ▽, then press ENTER.



3 Select the item using △ or ▽, then press ENTER.
The color of the box or speaker mark becomes the color of the source selected.
① Select the source to watch on the TV.
② Select the source to be displayed on the P IN P screen.
③ Select the video to be recorded.
④ Select the sound to be recorded.
⑤ Make REC OUT in red or in white.
Red: The REC OUT FIX is on. The REC OUT FIX lamp lights. The recording source is fixed, therefore, even if you change the source to watch, the recording source does not change.
White: The REC OUT FIX is off. The REC OUT FIX lamp is off. The recording source changes accordingly when you change the source to watch.



4 Press MENU to go back to the normal TV picture.

To change the program or video input after recording has started, or to turn off the TV (standby)

- If you did not make "REC OUT" in red on the INTELLIGENT I/O page (the REC OUT FIX lamp is not lit), press REC OUT FIX on the Remote Commander.
- If you made "REC OUT" in red (the REC OUT FIX lamp is lit), you do not need any operation.

When you set the INTELLIGENT I/O the next time

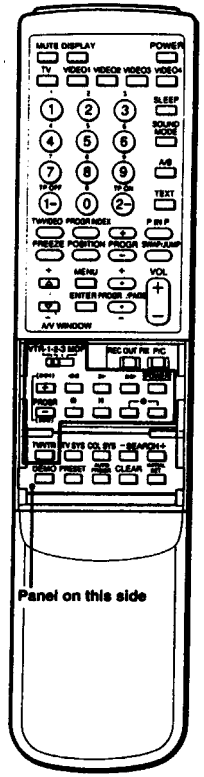
Make the "REC OUT" in white, if it is in red.

Notes

- After you started recording, do not turn off the TV by pressing the POWER switch on the TV. The recording stops.
- If you call the INTELLIGENT I/O page while watching the TV, the P IN P is displayed. To turn P IN P off, press P IN P.
- If you change TV program while recording a TV program, the newly selected TV program is recorded, even if you set the REC OUT FIX to on.

1-12. REMOTE CONTROL OF OTHER SONY EQUIPMENT

Buttons for VTR operation



You can use the TV Remote Commander to control other remote-controlled video equipment such as: Beta, 8mm, VHS VTRs or multi disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1-2-3-MDP selector according to the equipment you want to control.
VTR 1: Beta or ED Beta VTR
VTR 2: 8mm VTR
VTR 3: VHS VTR
MDP: Multi disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector: set this selector to the same position as the VTR 1-2-3-MDP selector on the TV Remote Commander.

If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

When recording

When you use the ● (record) button, make sure to press these two buttons simultaneously.